

FIG. 1

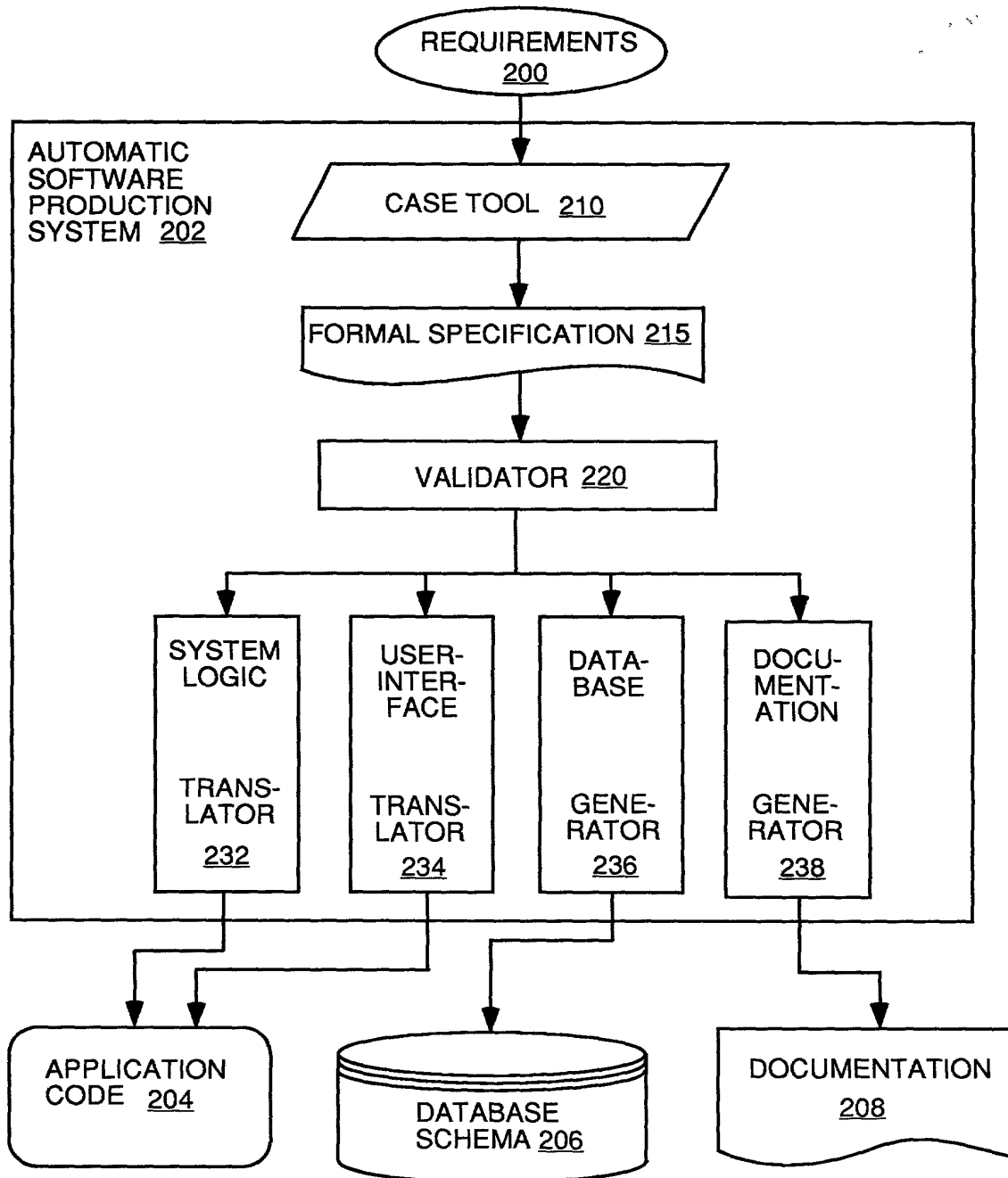


FIG. 2

FIG. 3

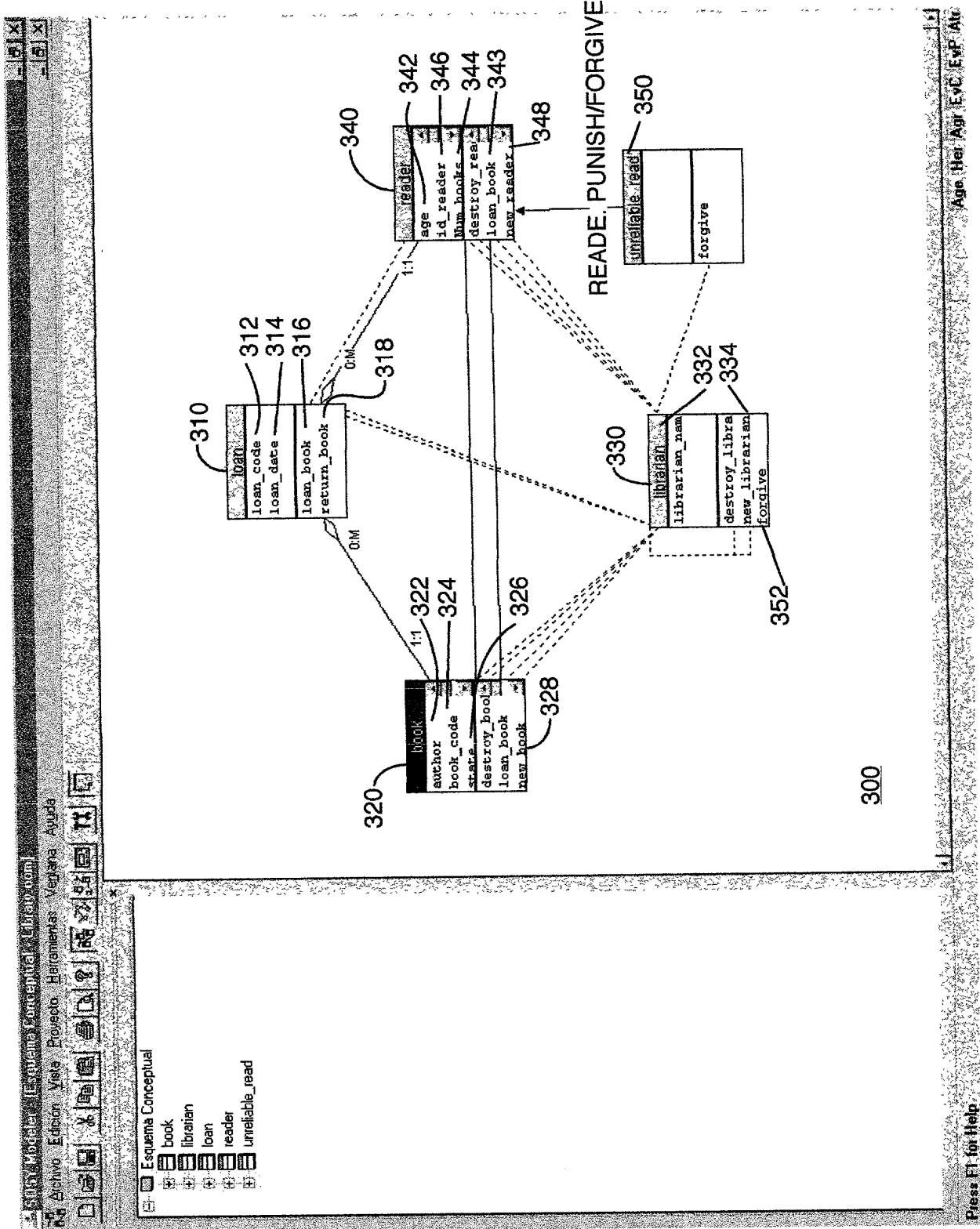
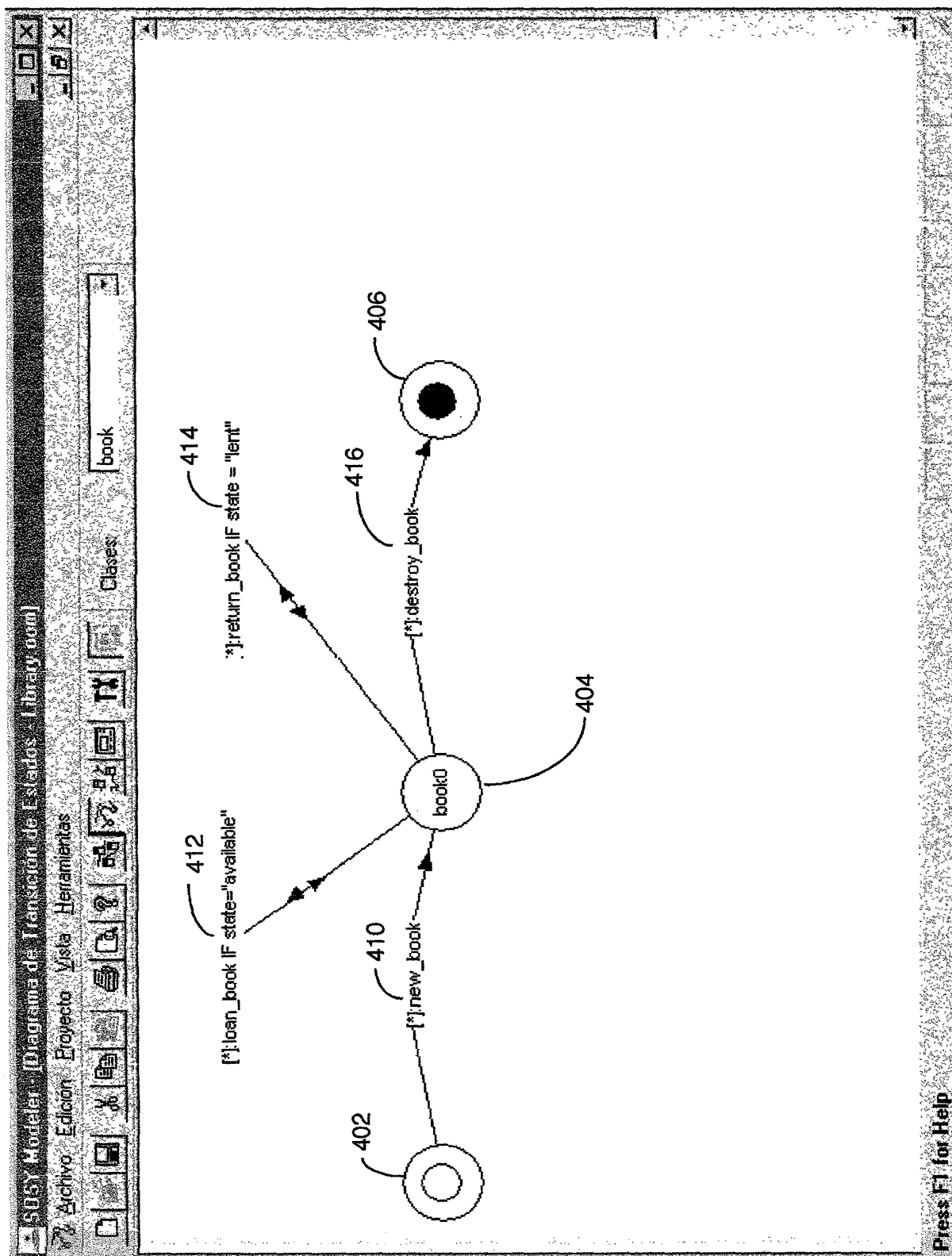


FIG.
4A



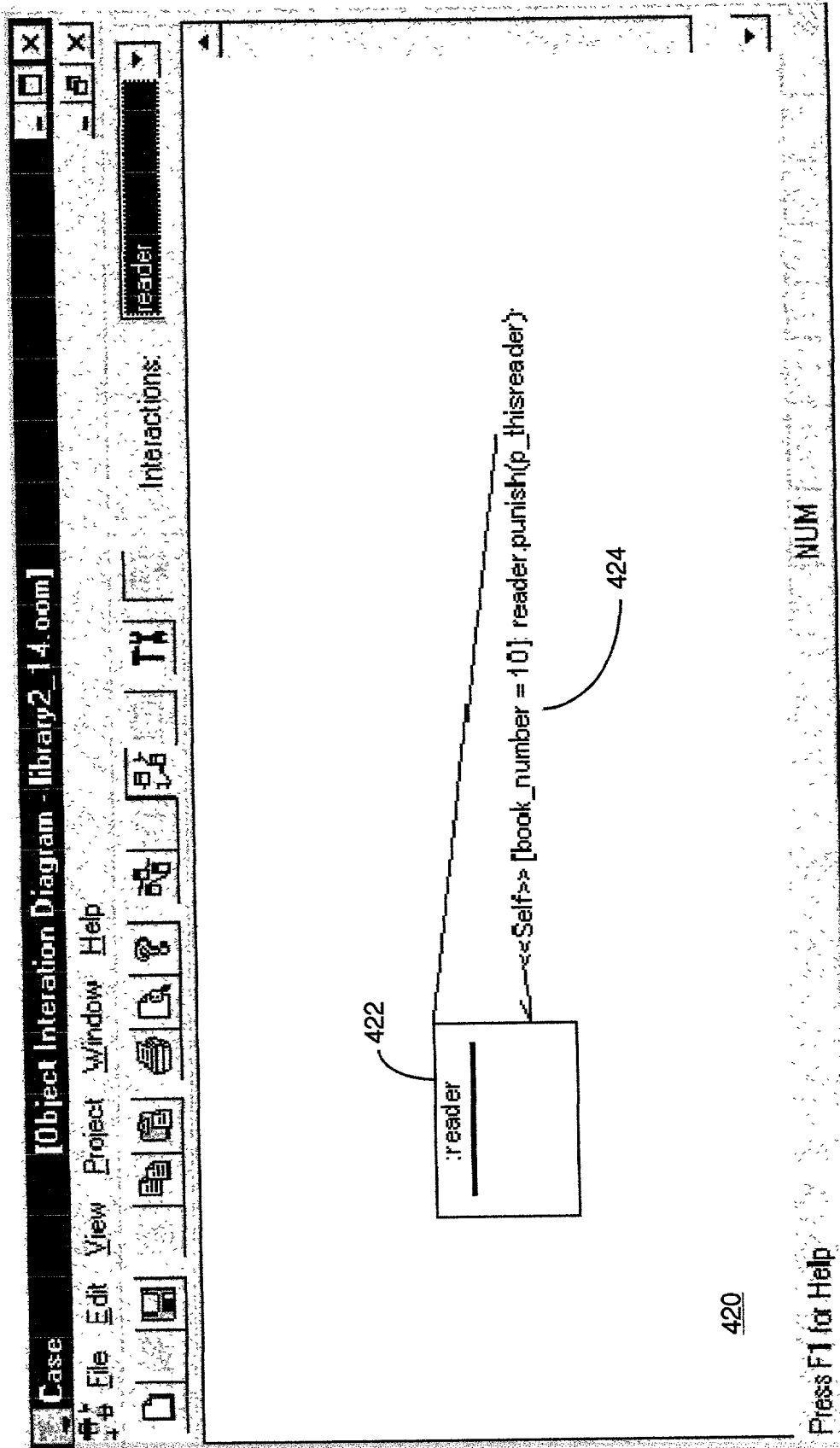


FIG. 4B

Functional Model

Class: Attribute:

Event: Effect: Condition:

Event: Effect: Condition:

Category: ☒ Push-pop ☐ State-independent ☐ Discrete-domain

Valuation Details

Event: Action type:

Valuation condition:

Effect of the event:

FIG. 5

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES OF SYSTEM LOGIC
TRANSLATORS WILL PREFORM

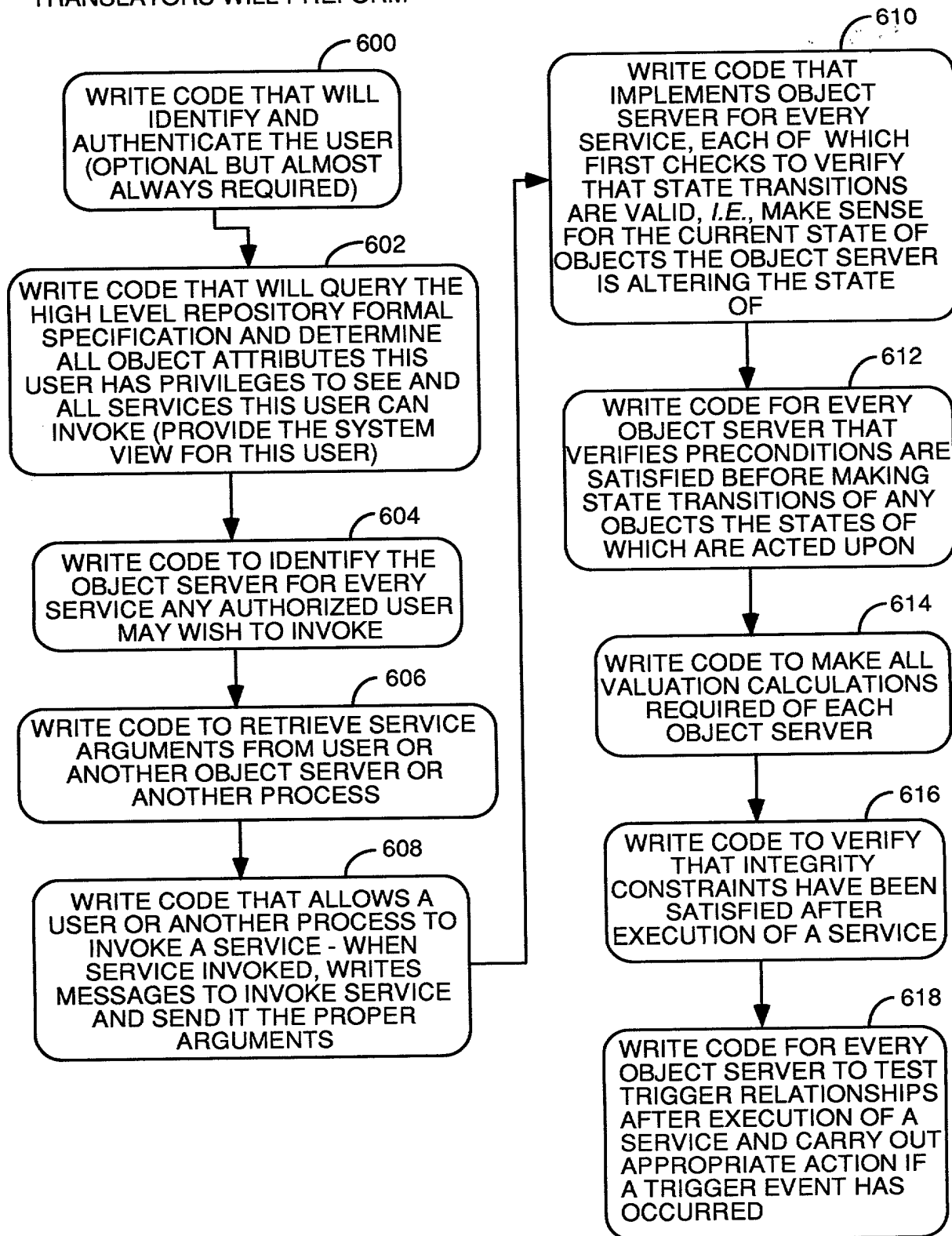


FIG. 6

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE USER INTERFACE
TRANSLATOR SUBGENUS WILL PREFORM

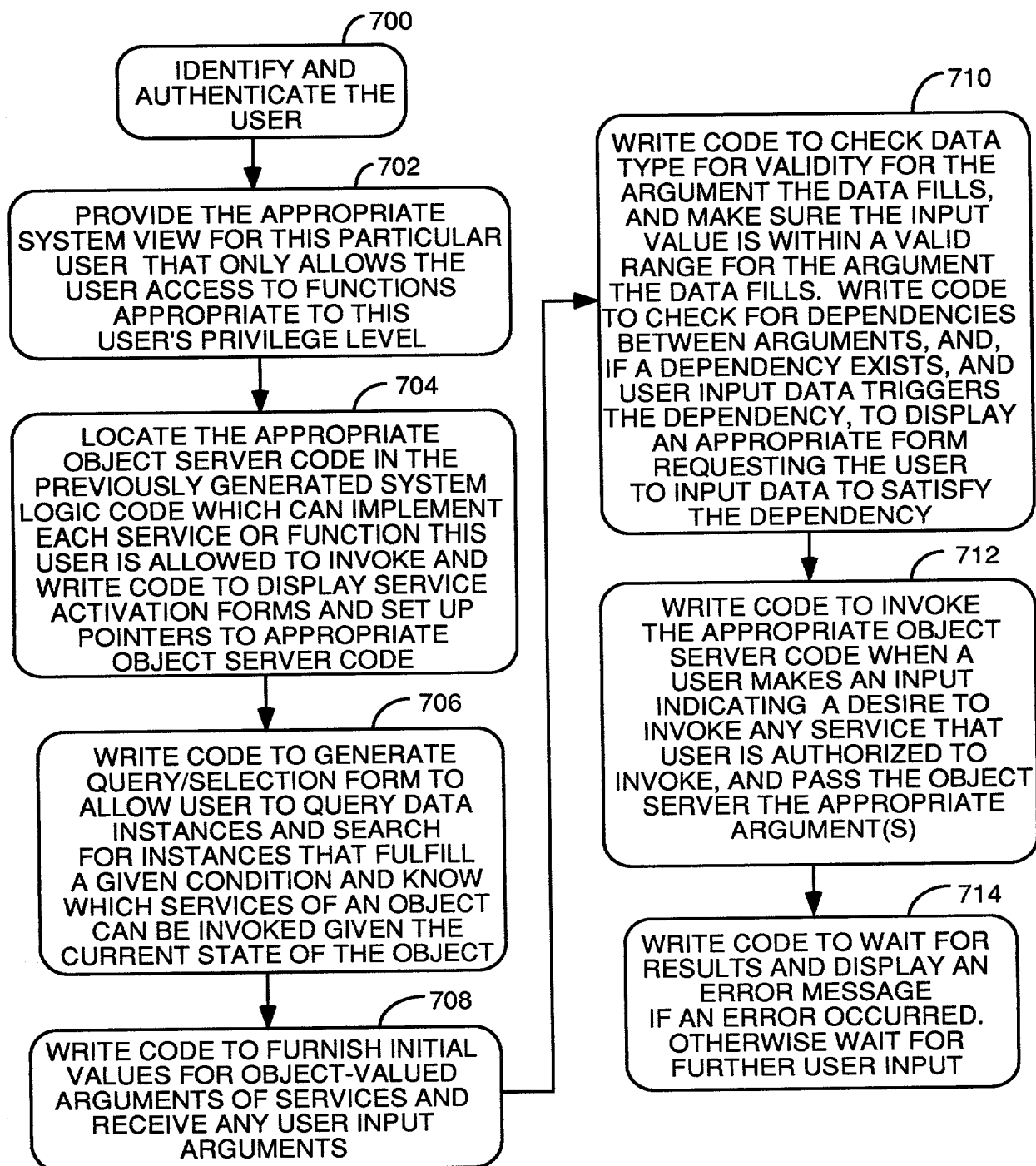


FIG. 7

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE DATABASE
GENERATOR TRANSLATOR SUBGENUS WILL PERFORM

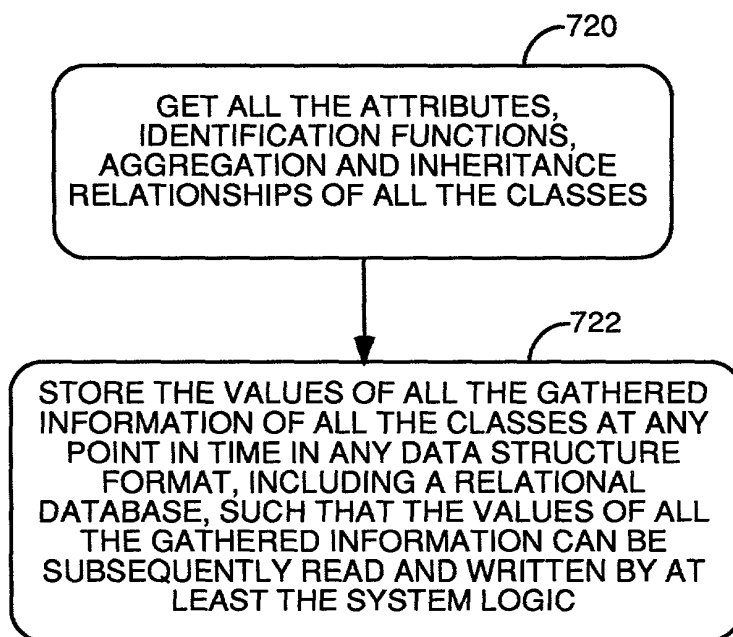
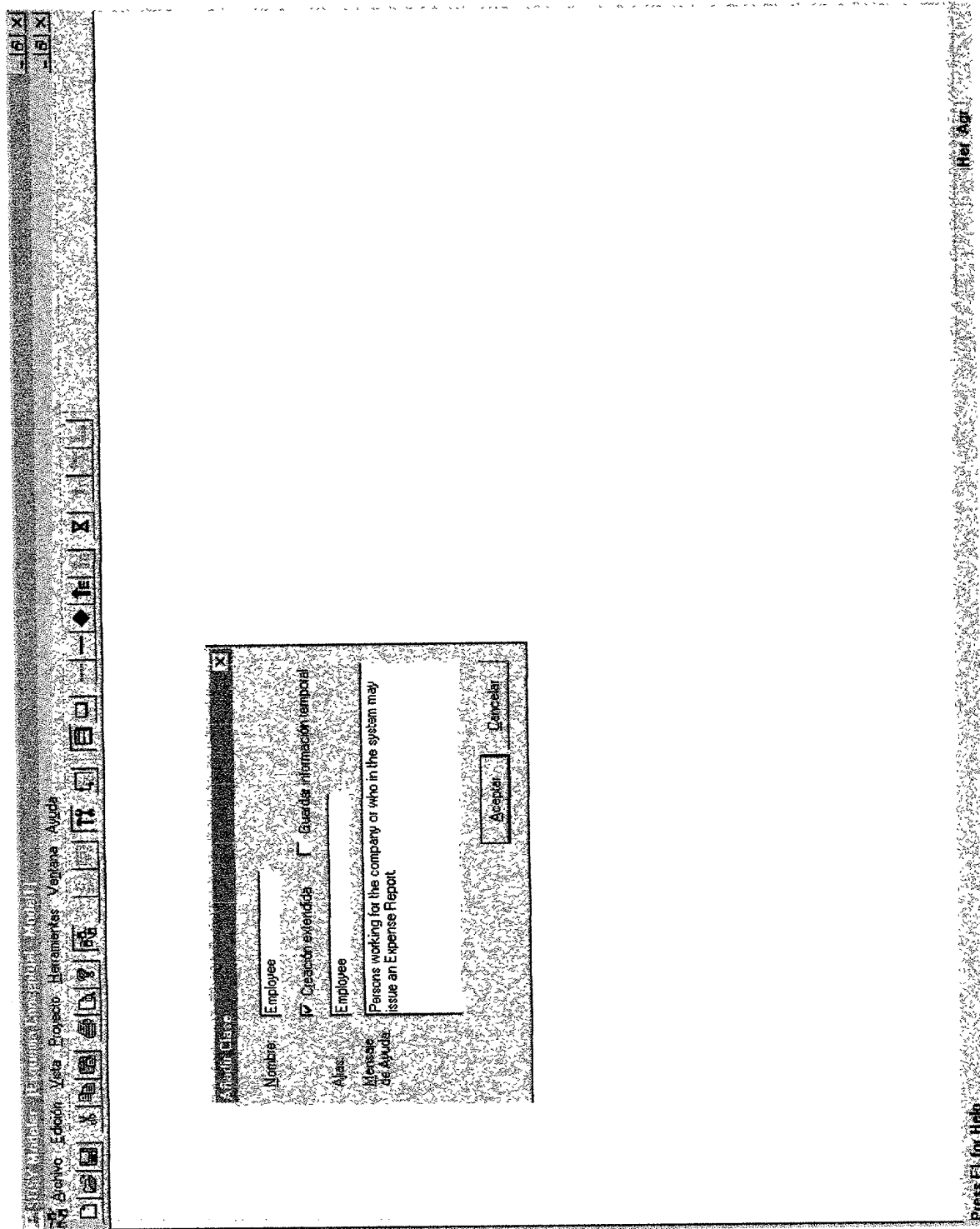


FIG. 8

CLASS CREATION
DIALOG

FIG. 9A



ALL CLASSES
NEEDED AND
CREATED IN
EXPENSE
MANAGEMENT
SYSTEM

FIG. 9B

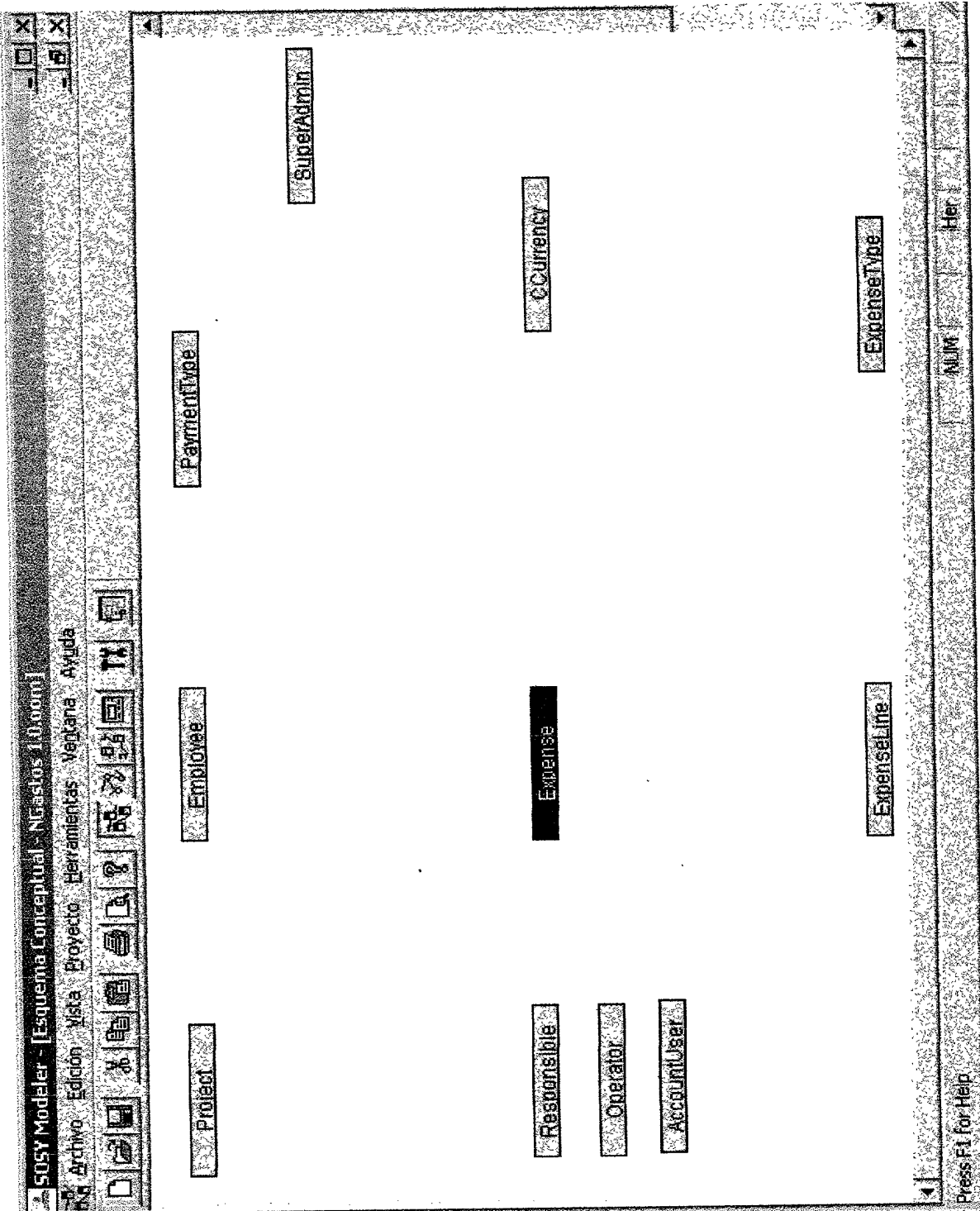
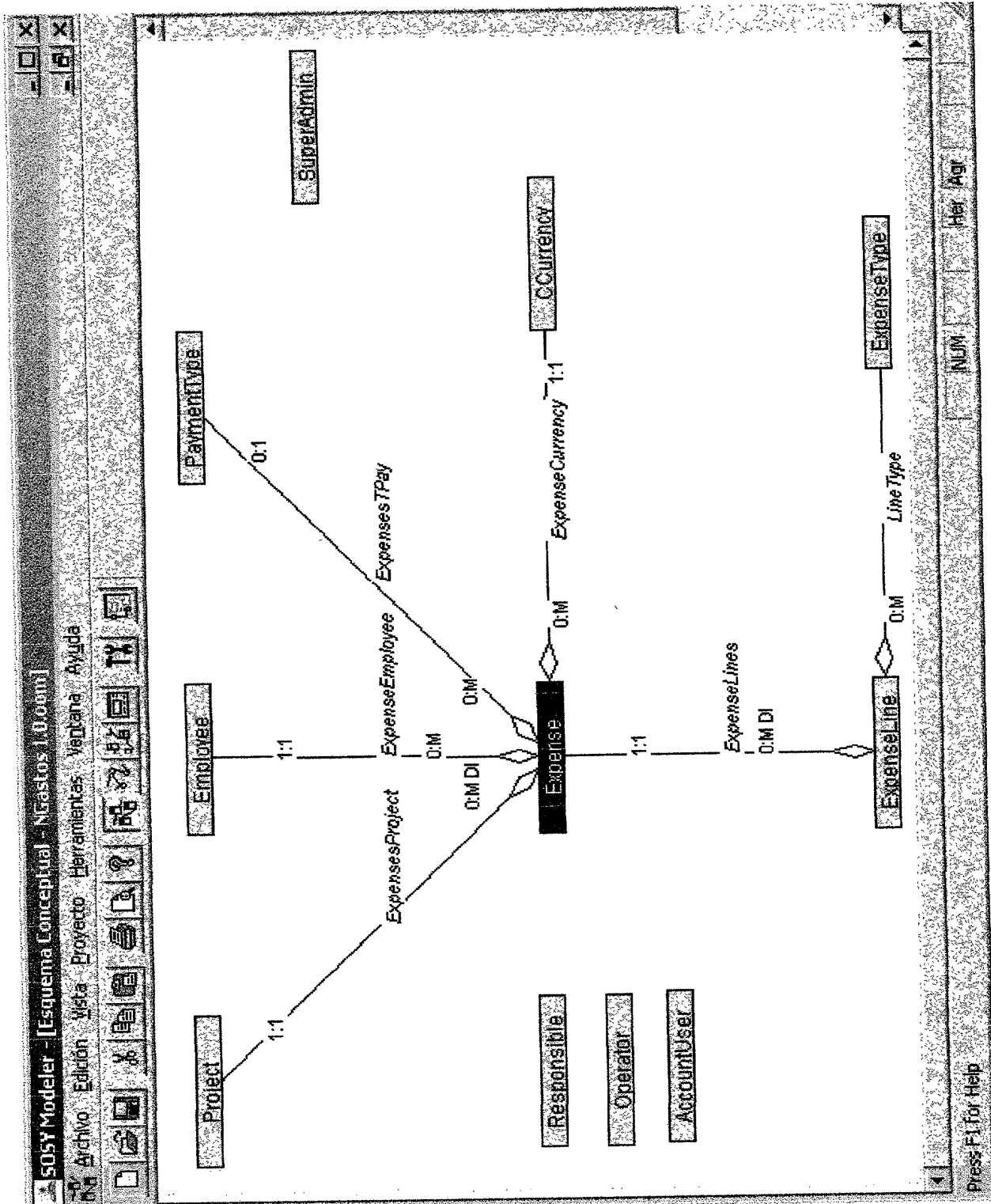


FIG. 9C





GRAPHIC DIALOG
 TO CREATE
 RELATIONSHIPS
 BETWEEN
 CLASSES AND
 GRAPHICALLY
 SHOW THE
 RELATIONSHIPS
 SO CREATED

FIG. 10

FIG. 11A

Clase

 Atributos | Servicios | Derivaciones | Restricciones | Agentes | Transacciones | Relaciones | Generalidades

Nombre	Tipo atributo	Tipo dato	Id	Tamaño	Valor defecto	Pedir al crear	Nulos
PresentDate	Constante	Date			today()	Si	No
Status	Variable	Int			0	No	No
Cause	Variable	String		255		Si	No
AuthoDate	Variable	Date			NULL	No	Si
AuthoComments	Variable	String		255	NULL	No	Si
PaymentDate	Variable	Date			NULL	No	Si
PayComments	Variable	String		255	NULL	No	Si
TotExpenses	Derivado	Real					
TotExpensesCur	Derivado	Real			0	Si	No
Advances	Variable	Real					
AdvancesCur	Derivado	Real					
Exchange	Variable	Real				No	Si
Balance	Derivado	Real					
BalanceCur	Derivado	Real					

☐ Información Temporal

Tipo Atributo: Tipo Dato:

Alias:

Observaciones:

Clase: Expense

Clase: **Expense**

Atributos: **Servicios** | **Derivaciones** | **Restricciones** | **Agentes** | **Transacciones** | **Relaciones** | **Generalidades**

Atributo: **Balance**

Fórmulas de Derivación	
Condición	Fórmula
Total Expenses - Advances	

Condición:
Fórmula:
Observaciones:
Aceptar Cancelar

Clase: **Expense**

FIG. 11B

SERVICES OF CLASS "EXPENSE"

FIG. 12

Clase

Atributos | Servicios | Derivaciones | Restricciones | Agentes | Transacciones | Relaciones | Generalidades

Transacción: DELETEALL

Fórmula

FOR ALL Lines DO Lines deleteLine(Lines). deleteExpense(THIS)

Acción

Clase/Rol: Expense

Agentes:

Servicio:

Parámetros:

Inicializar:

Approve:

Details

Clear Parámetro en la Transacción ☐

Observaciones:

Clase: Expense

Aceptar Cancelar

DIALOG TO DEFINE
FORMULA FOR
"DELETEALL"
TRANSACTION

FIG. 13

Clase

Atributos | Servicios | Derivaciones | Restricciones | Agentes | Transacciones | Relaciones | Generalidades

Estáticas

Exchange > 0

Exchange > 0

Exchange > 0

Exchange must be greater than zero

Fórmula

Exchange > 0

Mensaje De Error

Añadir

Modificar

Borrar

Hereditarias

Dinámicas

Oper Temporal

Oper Temporal

Oper Temporal

Oper Temporal

Condicion1

Condicion2

Fórmula

Oper Temporal

Mensaje De Error

Añadir

Modificar

Borrar

Clase:

Expense

Aceptar

Cancelar

INTEGRITY
CONSTRAINTS OF
EXPENSE CLASS

FIG. 14

Modelo Funcional

Clase: Atributo:

Evento	Efecto	Condición
modify	= p_Cause	

Categoría: ☒ De Estado ☐ De Situación

Detalles de Evaluación

Evento:

Condición de evaluación:

Efecto del evento:

☐ Inferir para el resto de atributos

DIALOG BOX TO CREATE
EVALUATION OF "CAUSE"
ATTRIBUTE WITH THE "MODIFY"
EVENT TO FORM PART OF
FUNCTIONAL MODEL

FIG. 15

Clase

Atributos | Servicios | Derivaciones | Restricciones | Agentes | Transacciones | Relaciones | Generalidades

Clase servidora: Expense

Servicios:

Servicio	Temporalidad
newexpense	No
modify	No
close	No
authorize	No
rejectautho	No
DELETEALL	No

Atributos:

Atributos
Cause
AuthoComments

Hacer temporal | No hacer temporal

Clase AccountUser tiene visibilidad sobre:

Atributos:

Atributos
Expense.id_Expense
Expense.PresentDate
Expense.Status
Expense.PaymentDate
Expense.PayComments
Expense.AuthoDate
Expense.TotExpenses
Expense.TotExpensesCur
Expense.Advances

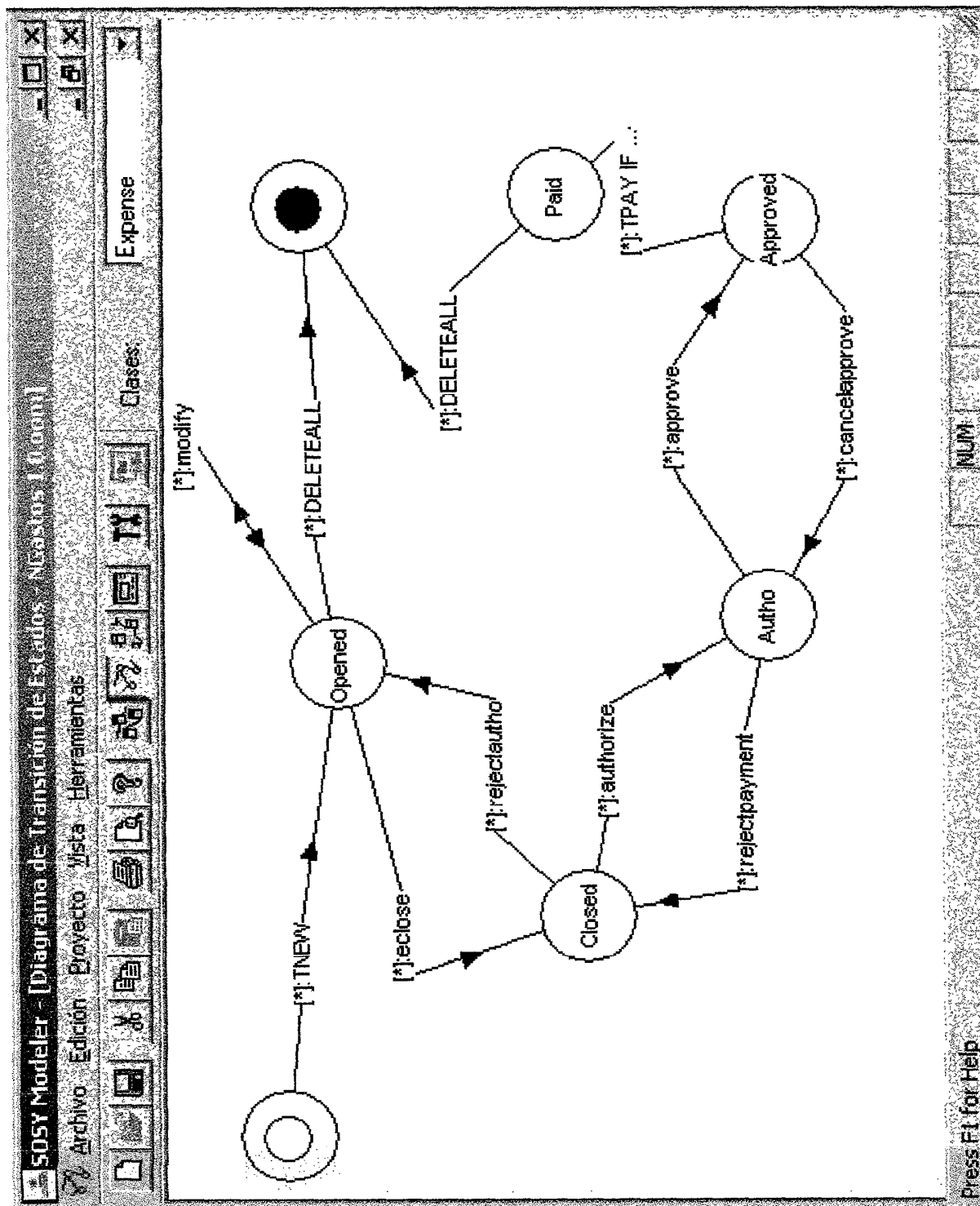
Clase:

AccountUser

Aceptar Cancelar

AGENT RELATIONSHIP
DIALOG THAT CAN BE
USED TO SET WHICH
SERVICES "ACCOUNT
USER" CAN ACCESS
AND VISIBILITY OF
CLASS ATTRIBUTES
FOR THIS USER

FIG. 16



STATE TRANSITION
 DIAGRAM FOR
 CLASS "EXPENSE"

FIG. 17

Transición

Origen: Destino:

Approved Paid

Aceptar Cancelar

Detalles

Agentes: AccountUser SuperAdmin

Servicio: TPAY

Precondición:
Balance > 0 OR ps_ReturnAdvance = TRUE

Condición de control:

Mensaje en caso de Error:
Check the advanced money excess

DIALOG BOX TO
MODEL
PRECONDITION

FIG. 18

Conjunto de Visualización

Nombre

CV_Expense

Limpiar

Borrar

Atributos a visualizar.

Atributo	Tipo dato
Project.ProjectName	String
Employee.EmpName	String
Employee.EmpSur...	String
Status	Int
AuthoDate	Date
PaymentDate	Date
TotExpenses	Real
Balance	Real

<< Añadir

Eliminar >>

Subir

Bajar

Agregar

Atributos.

Atributo	Tipo dato
Cause	String
AuthoDate	Date
AuthoComments	String
PaymentDate	Date
PayComments	String
TotExpenses	Real
TotExpensesCur	Real
Advances	Real
AdvancesCur	Real
Exchange	Real
Balance	Real
BalanceCur	Real

Clase: Expense

Aceptar

Cancelar

DIALOG BOX USED BY
 SOSY MODELER
 TO ESTABLISH A SET OF
 ATTRIBUTES
 TO BE DISPLAYED FOR
 THE "EXPENSE" CLASS

FIG. 19

Filtro [X]

Filtro: Alias:

Fórmula:

Observ:

Variables

Nombre	Alias	Tipo dato	Tipo estilo	Estilo
vf_Project	Project	Project	Sel. Población	
vf_Employee	Employee	Employee	Sel. Población	
vf_DateInIssue	Initial Issuing Date	Date		
vf_DateEndIssue	Final Issuing Date	Date		
vf_DateInApp	Initial Approving D...	Date		

Tipo: ☒ Simple ☐ Objeto-valorado

Nombre: Estilo de introd:

Alias: Estilo de selección:

Tipo de dato:

Clase: Expense

DIALOG BOX USED BY
SOSY MODELER
TO ESTABLISH THE
SEARCHING CRITERIA
FOR THE EXPENSE
CLASS AND TO ESTABLISH
THE FILTER FORMULA
TO USE AND THE
VARIABLES TO REQUEST
THE USER TO ENTER

FIG. 20

FLOWCHART OF THE FUNCTIONS THAT ALL SPECIES IN THE
DOCUMENTATION GENERATOR TRANSLATOR SUBGENUS WILL PERFORM

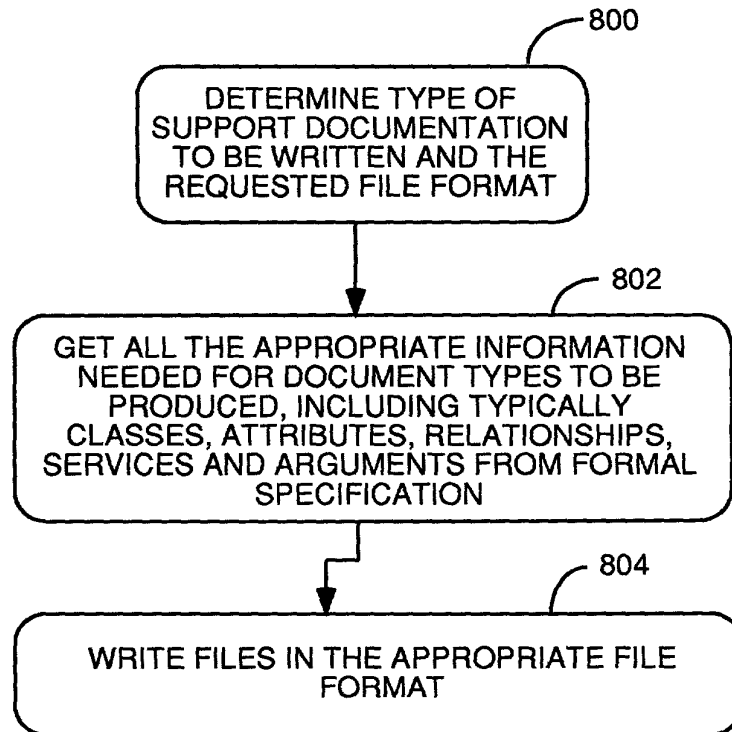


FIG. 21